

**Work Order ID 63686**

November 10, 2010 8:55:58 AM



Page 1

Item ID: D4211-041

Accept



Setup Start



Revision ID:

Item Name: Wearplate

Stop



Start Date: 11/10/10 Start Qty: 10.00



Cust Item ID:

Required Date: 11/15/10 Req'd Qty: 10.00



Customer:

Reference:

Approvals: Process Plan:

Date:

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr	Revision Nbr
D4211	B

100



Waterjet

FLOW CNC Waterjet

304 . 063

Memo

0.00

B10-11-11

1-Cut as per Dwg \*\*\*Make from D4211-1F\*\*\*

Dwg Rev: B

Prog Rev: B

2-Deburr if necessary

(1)

110



QC2- Inspect parts off machine FAI/FAIB

0.00

B10-11-14

QC

Memo

0.00

Quality Control

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng .	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

# Work Order ID 63686

November 10, 2010 8:55:58 AM



Page 2

Item ID: D4211-041

Accept



Setup Start



Revision ID:

Item Name: Wearplate

Stop



Start Date: 11/10/10 Start Qty: 10.00



Cust Item ID:

Required Date: 11/15/10 Req'd Qty: 10.00



Customer:

Reference:

Approvals: Process Plan:

Date:

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop



Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Tool ID

Tool #

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

120



QC

Quality Control

QC8- Inspect parts - second check

0.00

Soluln



130



Brake NC

Brake NC

Form as per dwg

0.00

SB colu/14



140



QC

Quality Control

QC5- Inspect part completeness to step on W/O

0.00

Soluln



W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

**Work Order ID 63686**

November 10, 2010 8:55:59 AM



Page 3

Item ID: D4211-041

Accept



Setup Start



Revision ID:

Item Name: Wearplate

Stop



Start Date: 11/10/10 Start Qty: 10.00



Cust Item ID:

Required Date: 11/15/10 Req'd Qty: 10.00



Customer:

Reference:

Approvals: Process Plan:

Date:

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop

Sequence ID/  
Work Center ID

150



Large Fab

Large Fab

Operation  
Description

Weld per dwg A/R Hardcoat S.S. Batch:

M116044

Set Up/  
Run Hours

0.00

Tool ID

Tool #

Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

160



QC

Quality Control

QC5- Inspect visual per QSI004- Fusion Welds

2410

Memo

0.00

8/10/11

0.00

165



QC

Quality Control

QC5- Inspect part completeness to step on W/O

2410

Memo

0.00

8/10/11

0.00

BL 10-11-20 R11

Pb →

+11

W/O: 63686		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
10/11/22	# 160	Perm. change cherry to ac 10	M	10.11.23		S	10/11/22

Part No: D4211-041 PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

# Work Order ID 63686

November 10, 2010 8:55:59 AM



Page 4

Item ID: D4211-041

Accept



Setup Start



Revision ID:

Item Name: Wearplate

Stop



Start Date: 11/10/10 Start Qty: 10.00



Cust Item ID:

Required Date: 11/15/10 Req'd Qty: 10.00



Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop



Sequence ID/  
Work Center ID

170



Powdercoat

Powder Coating

Operation  
Description

Black Sandtex(Ref:4.3.5.7) per QSI005 4.3

Set Up/  
Run Hours

0.00

Tool ID

Tool #

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

M 112588

Memo

Start Time: 2:00  
Oven Temperature: 320°  
Finish Time: 12:30

11

BL 10-11-22

180



QC

Quality Control

QC3- Inspect Part Finish

0.00

2) M 10 11 122

11

✓

190



Packaging

Packaging

Identify as per dwg & Stock Location: 18000

0.00

ISUG 7

U 10-11-22

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

**Work Order ID 63686**

Page 5

November 10, 2010 8:56:00 AM

Item ID: D4211-041

Accept



Setup Start



Revision ID:

Item Name: Wearplate

Stop



Start Date: 11/10/10 Start Qty: 10.00



Cust Item ID:

Required Date: 11/15/10 Req'd Qty: 10.00



Customer:

Reference:

Approvals: Process Plan:

Date:

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop

Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run Hours

Tool ID

Tool #

Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

200



QC

Quality Control

QC21- Final Inspection - Work Order Release

0.00

Memo

0.00

*OK 10/11/23 HF*

*MF*  
*10-11-2010*

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

# Picklist Print

November 10, 2010 8:55:57 AM

Page 1

Work Order ID: 63686



Parent Item: D4211-041



Parent Item Name: Wearplate

Start Date: 11/10/10

Required Date: 11/15/10

Start Qty: 10.00

Required Qty: 10.00

Comments: IPP Rev:A 10.09.29 new issue DD verf:EC  
10.11.04 as per revB DD verf:EC

IPP Rev:B

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M304S16GA		Purchased		No		100	sf	170.6000	0.3559	3.746316	4.3		

304/316 Sheet .063

Location	Loc Qty	Loc Code
MAT	170.6	
111323	0	
115688	10.6	
115953	160	

115688

(14)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

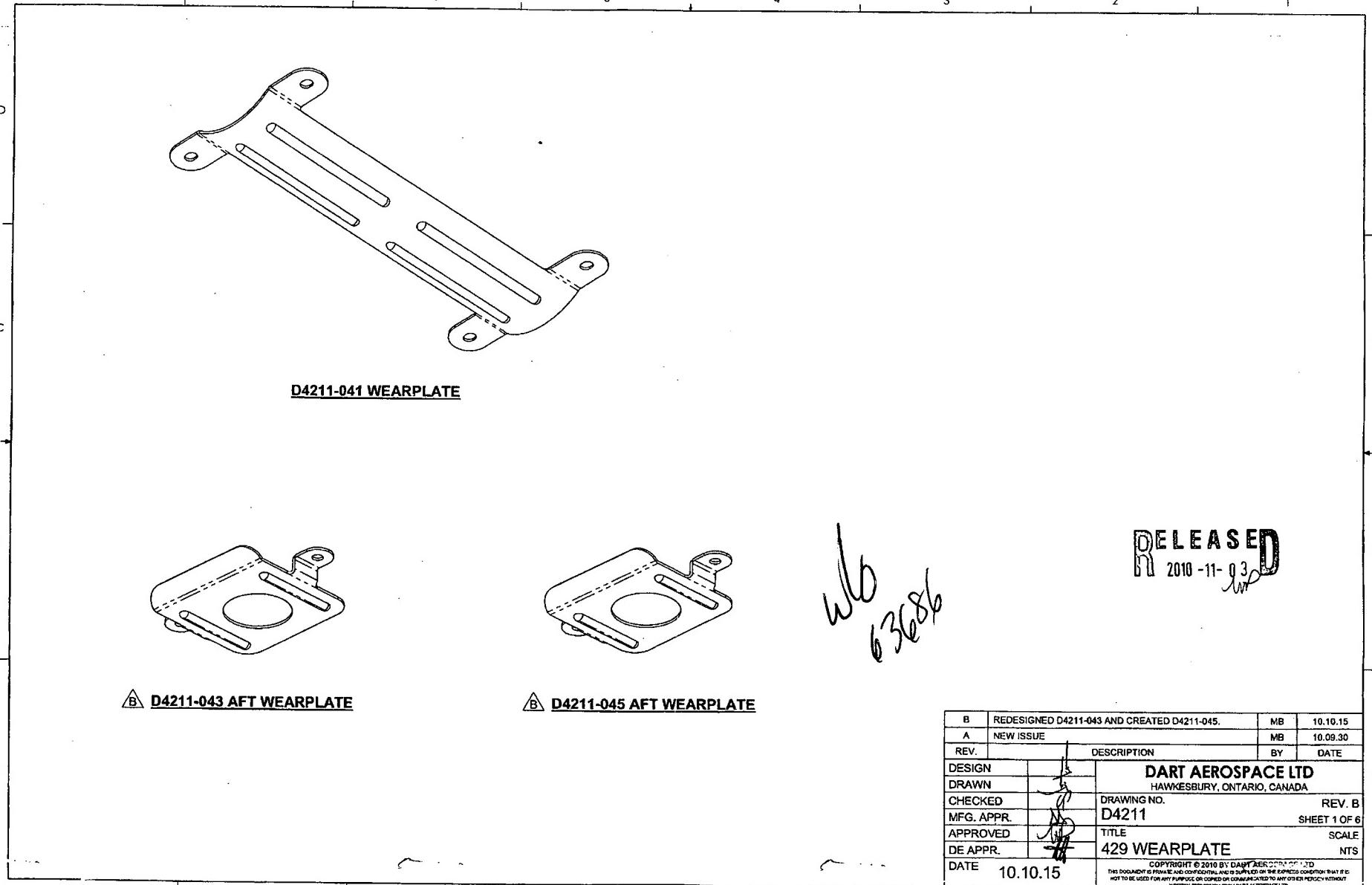
DART AEROSPACE LTD	Work Order:	63686
Description: WEAR PLATE	Part Number:	D4211-1
Inspection Dwg: D4211-1 , Rev: B		Page 1 of 1

## FIRST ARTICLE INSPECTION CHECKLIST

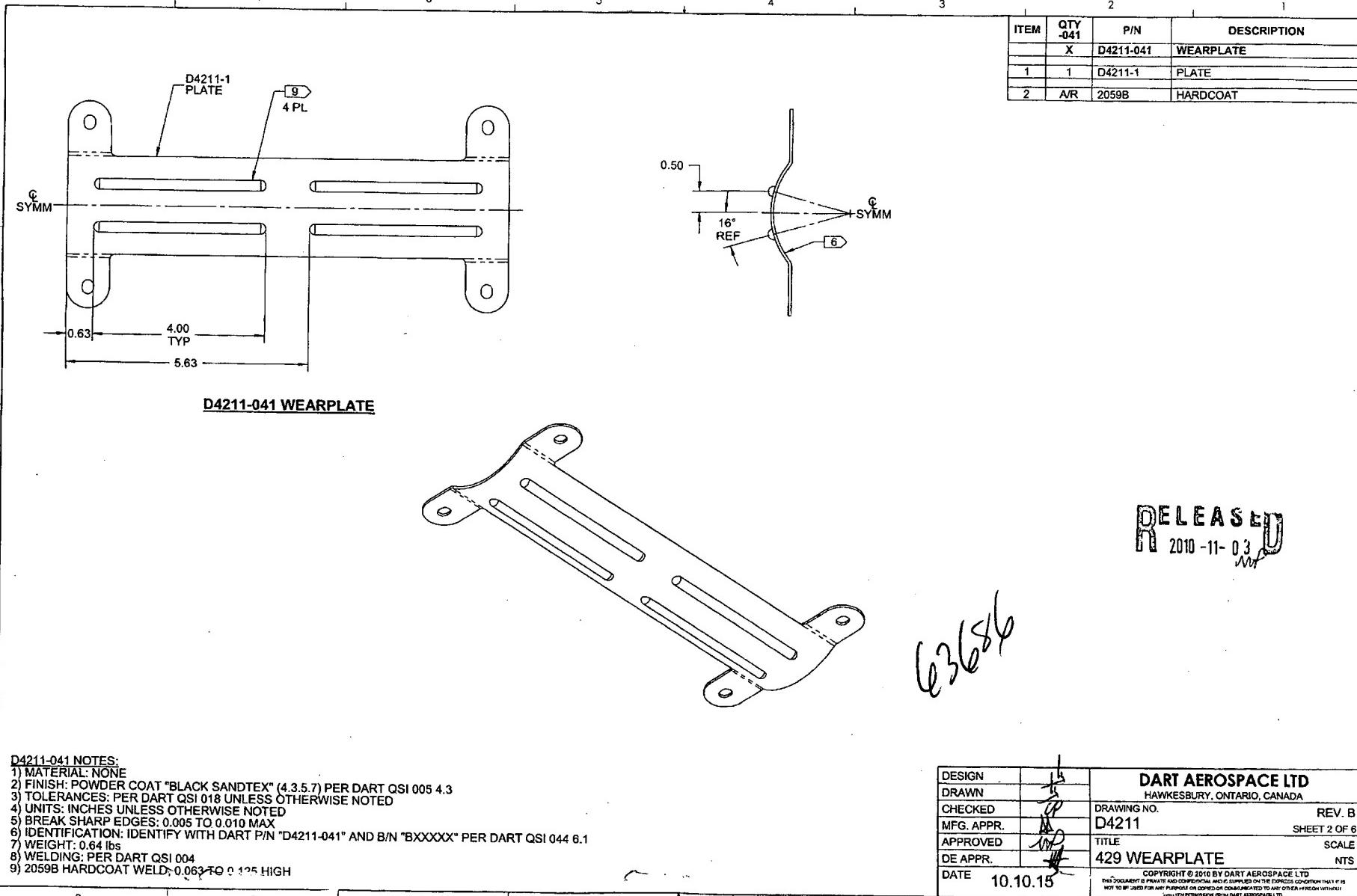
## **x First Article      x Prototype**

Measured by:	RB	Audited by:	S	Prototype Approval:	
Date:	10-11-11	Date:	10/14/11	Date:	

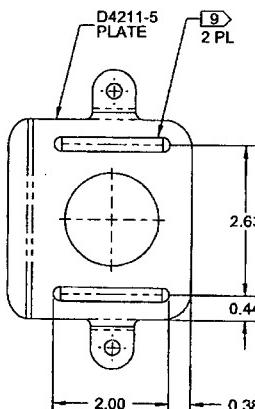
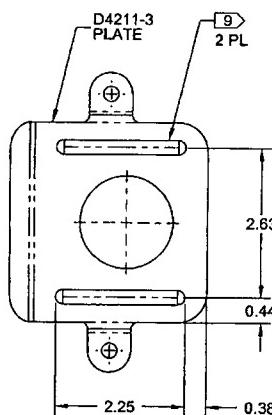
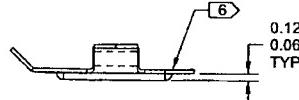
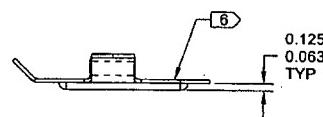
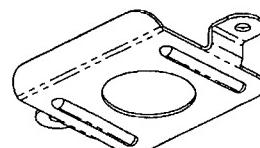
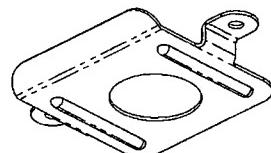
Rev	Date	Change	Revised by	Approved
A		New Issue	KJ/JLM	



B	REDESIGNED D4211-043 AND CREATED D4211-045.	MB	10.10.15
A	NEW ISSUE	MB	10.09.30
REV.	DESCRIPTION		
DESIGN	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA		
DRAWN	<i>[Signature]</i>		
CHECKED	<i>[Signature]</i>		
MFG. APPR.	<i>[Signature]</i>		
APPROVED	<i>[Signature]</i>		
DE APPR.	<i>[Signature]</i>		
DATE	10.10.15		
		DRAWING NO. <b>D4211</b> SHEET 1 OF 6	
		TITLE <b>429 WEARPLATE</b>	
		SCALE NTS	
COPYRIGHT © 2010 BY DART AEROSPACE LTD THE DO NOT REPRODUCE OR ALTER THIS DRAWING IN ANY WAY. IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD			



ITEM	QTY -043	QTY -045	P/N	DESCRIPTION
	X		D4211-043	AFT WEARPLATE
		X	D4211-045	AFT WEARPLATE
1	1		D4211-3	PLATE
2		1	D4211-5	PLATE
3	A/R	A/R	2059B	HARDCOAT



**D4211-043 AFT WEARPLATE**

**D4211-045 AFT WEARPLATE**

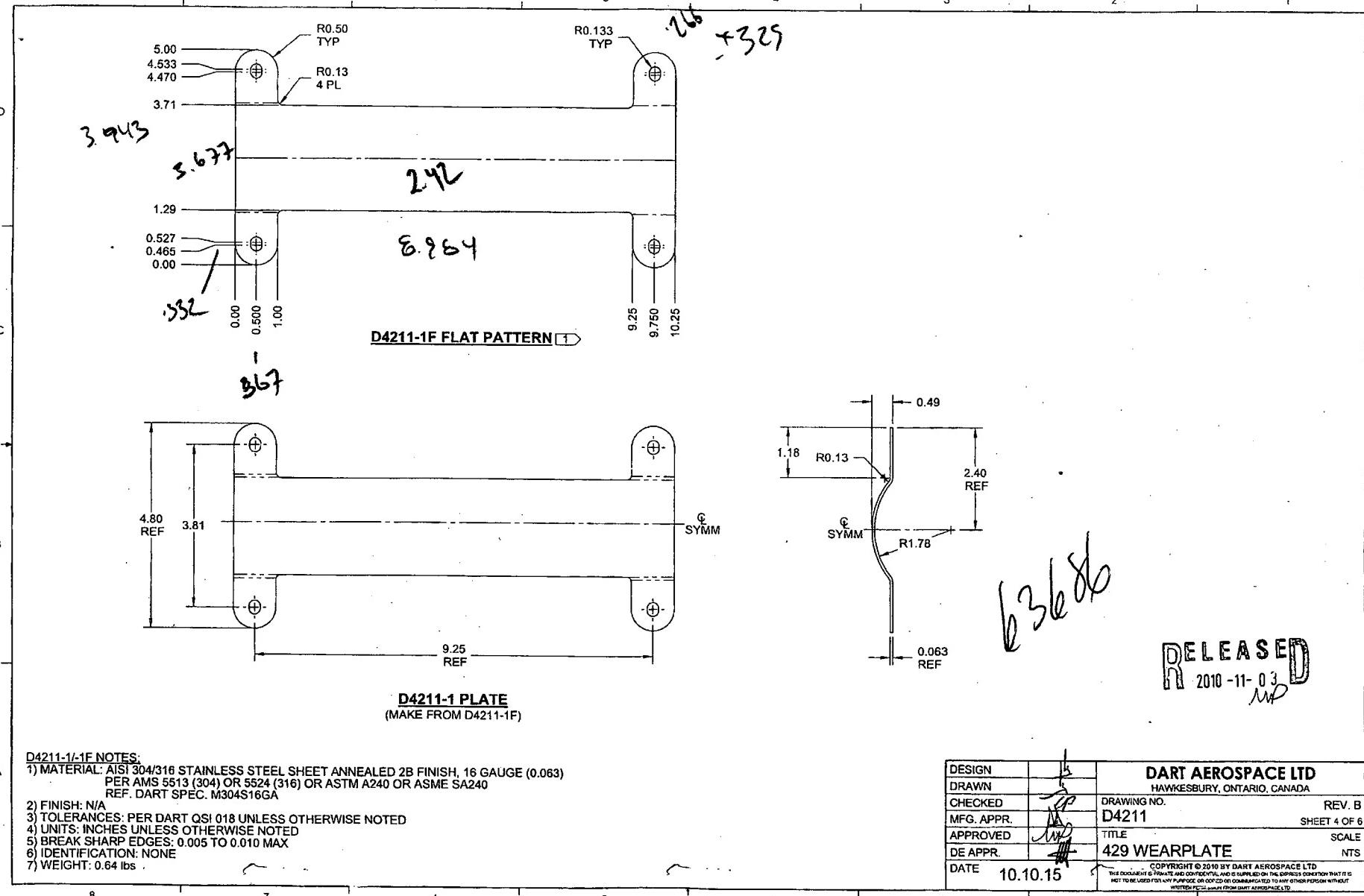
**D4211-043/045 NOTES:**

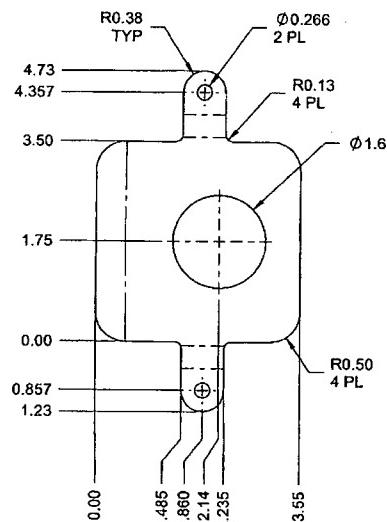
- 1) MATERIAL: NONE
- 2) FINISH: POWDER COAT "BLACK SANDTEX" (4.3.5.7) PER DART QSI 005 4.3
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D4211-04X" AND B/N "BXXXXX" PER DART QSI 044 6.1
- 7) WEIGHT: 0.24 lbs
- 8) WELDING: PER DART QSI 004
- 9) 2059B HARDCOAT WELD, 0.063 TO 0.125 HIGH

6368b

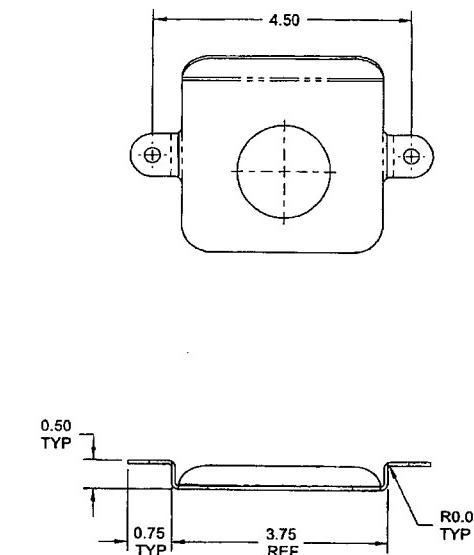
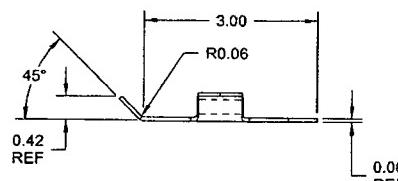
RELEASED  
2010-11-03

DESIGN	<i>tb</i>	DART AEROSPACE LTD	
DRAWN	<i>tb</i>	HAWKESBURY, ONTARIO, CANADA	
CHECKED	<i>tb</i>	DRAWING NO.	REV. B
MFG. APPR.	<i>tb</i>	D4211	SHEET 3 OF 6
APPROVED	<i>tb</i>	TITLE	SCALE
DE APPR.	<i>tb</i>	429 WEARPLATE	NTS
DATE	10.10.15	COPYRIGHT © 2010 BY DART AEROSPACE LTD. THIS DOCUMENT CONTAINS TRADE SECRET INFORMATION WHICH IS THE PROPERTY OF DART AEROSPACE LTD. IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	





**D4211-3F FLAT PATTERN**



**D4211-3 PLATE**  
(MAKE FROM D4211-3F)

C3686

RELEASED  
2010-11-10

**D4211-3-3F NOTES:**

- 1) MATERIAL: AISI 304/316 STAINLESS STEEL SHEET ANNEALED 2B FINISH, 16 GAUGE (0.063)  
PER AMS 5513 (304) OR 5524 (316) OR ASTM A240 OR ASME SA240  
REF. DART SPEC. M304S16GA
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: 0.24 lbs

DESIGN	1A	DART AEROSPACE LTD	
DRAWN	1A	HAWKESBURY, ONTARIO, CANADA	
CHECKED	1P	DRAWING NO.	
MFG. APPR.	1M	REV. B	
APPROVED	1M	D4211	
DE APPR.	1M	SHEET 5 OF 6	
DATE	10.10.15	TITLE	SCALE
		429 WEARPLATE	NTS
COPYRIGHT © 2010 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.			

